

STATUS OF WILD ELEPHANTS *ELEPHAS MAXIMUS* (LINN.) IN CACHAR AND NORTH CACHAR HILLS, ASSAM— A PRELIMINARY INVESTIGATION¹

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(With two text-figures)

The Cachar and North Cachar hills districts of southern Assam once held large populations of wild elephants. However, habitat destruction and poaching has made them locally extinct in many areas. Though a very good elephant population still exists in Assam, in these two areas their status is vulnerable.

INTRODUCTION

The Asiatic or Indian elephant *Elephas maximus* (Linnaeus 1758) has a wide distribution throughout South and South-east Asia, extending up to Sumatra and Borneo (Freeman 1980). In Assam it is found on both banks of the Brahmaputra river. The estimated population in Assam is around 4000-4500, of which about 1770 are found in the duar and the sub-Himalayan forests on the north bank of the Brahmaputra, including about 1200 in the Manas Tiger Reserve area. In 1982 a census was conducted which covered areas eastwards up to the extreme corner of the north bank region and a total of 566 elephants were found (Choudhury undated). The estimate for the south bank is about 2200-2700, which includes 523 in Kaziranga (1984 count) and c.150 in Sib-sagar-Jorhat area (own estimate based on field study).

The main stronghold of elephants in the south bank is Karbi Anglong with contiguous habitats in Nagaon, Golaghat (part of Sibsagar district till 1983, and that of Jorhat district till 1987) and Nagaland.

Field trips were carried out in North Cachar hills (February 1986, September 1988) and in Cachar (March 1986, February 1987, April 1988). Although the main purpose of the trips was the study of non-human primates, information and data on elephants were also collected.

STUDY AREA

North Cachar hills District is located be-

tween 24°59' to 25°49'N and 92°31' to 93°28' E. In the southern and eastern part lies the lofty Barail range, the highest hill range of Assam having some areas over 1800 m above m.s.l. The rest of the district is rugged low hilly country. The Barail range, which also forms the watershed between Brahmaputra and Barak basins, is an extension of the Himalayan chain of mountains.

Cachar district (including Karimganj, which became a separate district in 1983) is located between 24° 09' to 25°08'N and 92°13' to 93°16' E. The northern side is flanked by the Barails with parts above 1600 m while the southern hills are much lower and are the northern extensions of Mizo (Lushai) hills. Some of these extensions penetrated into Cachar forming long narrow valleys like the Dhaleswari valley which forms the bulk of Hailakandi sub-division. The rest of Cachar is a plain formed by the Barak river and its tributaries.

The Dyung, Langting, Kopili, Lungding and Jatinga are the main rivers of North Cachar (N. C.) hills while Barak, Dhaleswari, Sonai, Longai, Jatinga and Jiri are the main rivers of Cachar. In Cachar there are innumerable beels (ox-bow lakes) all over the area which included Son beel, Rata beel, Bakri hawor and Chatla hawor. The climate of both the areas is tropical except for small areas on the Barails where due to the altitude it is temperate. The summers are hot and wet while the winters are generally cool and dry. Winter rains are not uncommon. The annual rainfall in N. C. hills varies from less than 1000 mm in the northern areas to more than 4000 mm in the extreme south-west and in Cachar from 2000 mm to more than 6000 mm in the extreme north-west (NATMO 1977).

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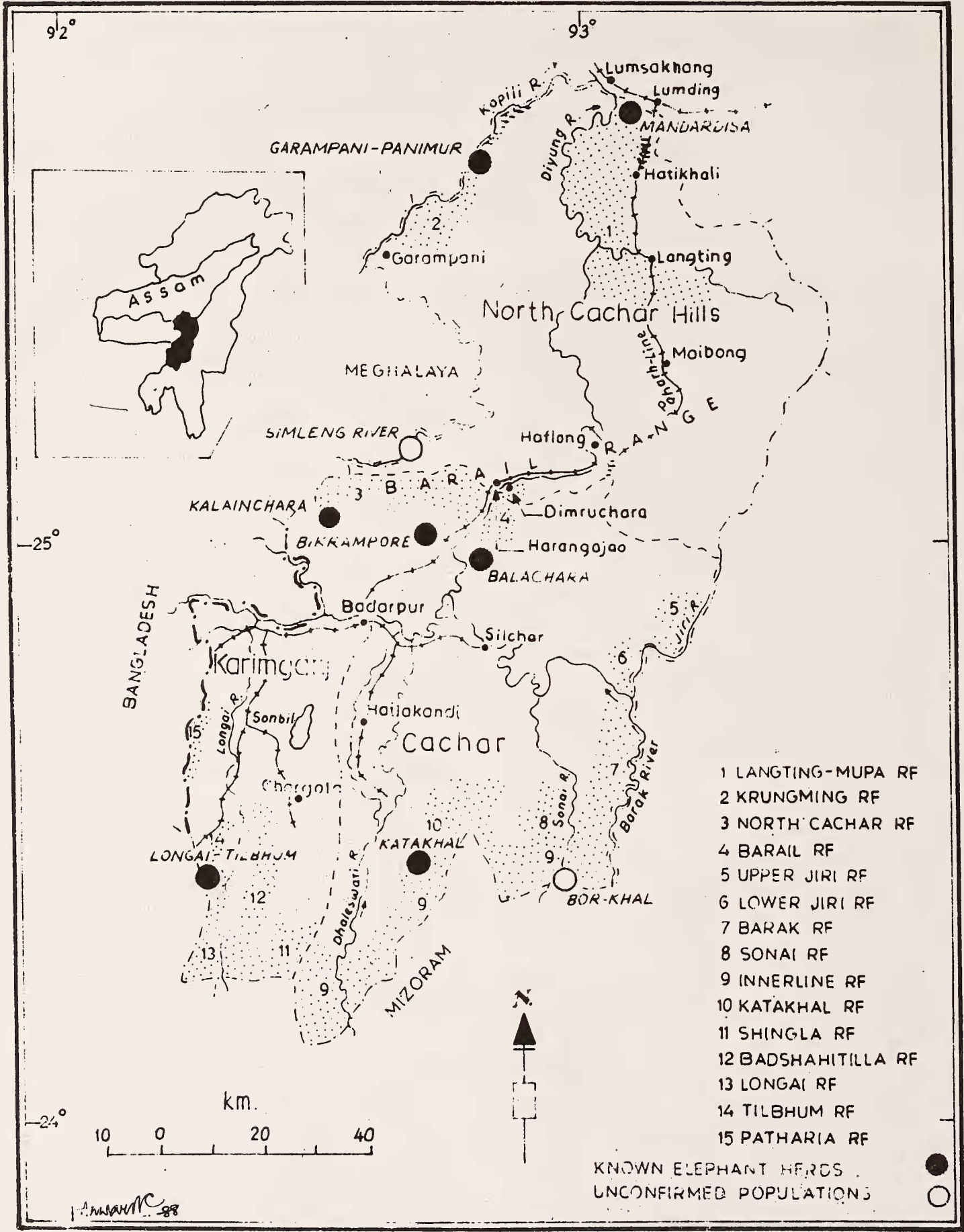


Fig. 1. Map of North Cachar Hills and Cachar (including Karimganj) showing location of main elephant populations. Dotted areas show reserved forests (RFs)

In N.C. hills wet evergreen and semi-evergreen forests occur in the Barails, western areas of Krungming RF and along nullahs and depressions in Langting-Mupa RF. The main tree species of the top canopy include *Artocarpus chaplasha*, *Mesua ferrea*, *Amoora wallichii*, *Michelia champaca*, *Mangifera* sp., *Schima wallichii*, *Phoebe goalparensis*, *Duabanga* sp., *Tetrameles nudiflora*, *Gmelina arborea*, etc. In the northern areas, especially in Langting-Mupa reserved forest, it is the moist mixed deciduous type which covers the bulk of the area. A good number of evergreen trees are also present. In the top canopy there are species like *Adina cordifolia*, *Lagerstroemia parviflora*, *Albizia* sp., *Terminalia bellerica*, *Sterculia villosa*, *Salmalia malabarica*, *Schima wallichii*, *Amoora wallichii*, *Gmelina arborea*, etc.

The middle storey has species like *Macaranga denticulata*, *Bauhinia* sp., etc. Bamboo brakes occur throughout the area especially in old jhums. The main species are *Oxytenanthera nigrociliata/parviflora* (hill jati), *Bambusa tulda* (jati), *Dendrocalamus hamiltonii* and *Melocanna bambusoides* (mulu). In the high altitude areas of the Barails, both in N. C. hills and Cachar occurs sub-tropical broadleaved hill forest. This forest type is generally dense and not very high. The tree species of the canopy layer include *Manglietia insignis*, *Schima khasiana*, *Cinnamomum* sp., etc. Patches of barren grassy areas also occur on the Barails.

The forests in Cachar are mostly confined to the hills and foothills and are of tropical wet evergreen and semi-evergreen types. The main tree species of the top canopy and second storey are *Palaquium polyanthum* (kurta), *Dipterocarpus turbinatus* (gurjan), *Artocarpus chaplasha*, *Cinometra polyandra*, *Mesua ferrea* (nageswar), *Eugenia* sp., *Albizia* sp., etc. *Melocanna bambusoides* grows abundantly especially in jhums with other bamboo species like *Teinostachyum dullooa* and *Bambusa tulda*. Due to its rich floristic composition, Champion and Seth (1968) classified the forests of Cachar as 'Cachar tropical evergreen and Cachar tropical semi-evergreen

forests' (Type IB/(C₃) and Type 2B/(C₂) respectively).

RESULTS

North Cachar hills: Wild elephants were not uncommon almost throughout the northern areas of N. C. hills except in the main Barail range. Due to the steep gradient elephants avoided the main Barail range, but they frequented the foothills and sometimes moved into parts of the main range following river courses. For instance, till the early 1950s elephants were visitors to Harangajao, following the Jatinga river from Cachar. The last time elephants were seen by the local Khasi tribesmen in the area near Dimbruchara was in 1955-56. Thereafter they ceased to visit the area as in the Jatinga valley (more than 1 km wide at places) human activities like permanent paddy cultivation intensified.

Towards the north, the Langting-Mupa RF was well-known as elephant country. The moist mixed deciduous forests over low undulating hills with little gradient, all favoured elephants. When the hill section (Paharh line as it is called) of the railway line between Lunding and Badarpur was constructed in the last decade of the 19th century, confrontations between trains and elephants were a regular feature. Hatikhali (Hati = elephant), an important railway station, derived its name from elephants.

But the situation is different now. Except for a small herd of about 10-15 in the extreme north covering parts of Lamsakhang and Mandardisa Beats, there are no known elephant populations in the 493 sq. km Langting-Mupa RF. No elephants remain in and around Langting and Hatikhali proper, places which were particularly known for wild elephants. The Mandardisa herd moves regularly between Hojai area of Nagaon and Karbi Anglong districts.

Garampani-Panimur area (including Krungming RF) is perhaps the last stronghold of elephants in N. C. Hills. Though exact figures are not available, recent reports suggest that there may be about 50-60 elephants. The only other area from where confirmed reports were received is

TABLE 1
GROWTH OF POPULATION OF NORTH CACHAR HILLS
AND CACHAR (INCLUDING KARIMGANJ) SINCE 1951

Year		Population	Density/ sq. km
1951	N.C. Hills	*	*
	Cachar	1116,000	160
1961	N.C. Hills	54,000	11
	Cachar	1378,000	198
1971	N.C. Hills	76,000	16
	Cachar	1713,000	246
1981	N.C. Hills	106,000	22
	Cachar	2377,000	341
1988	N.C. Hills	129,000	26
	Cachar	2914,000	419

Sources: 1951, 1961, 1971, Census of India. 1981 & 1988 estimates on the basis of Expert Committee on Population Projection, Registrar General & Census Commissioner, India. *Figures not available.

from the unexplored Simleng river area bordering Jaintia hills of Meghalaya.

It may also be mentioned here that there were two outbursts of anthrax epidemic in the present century, the last one being in the mid-forties, which devastated the elephant populations of the N. C. hills (Lahiri Choudhury, pers. comm.).

Cachar: In Cachar elephants existed in the north along the foot of the Barails, and in the southern low hills, the northern extensions of which came almost upto the Barak river. But things have changed now. There are no elephants at present in the Innerline RF (1035 sq. km, the largest RF in Assam) except in the area where the Sonai river enters Cachar, where a few may exist. In Sonai, Barak and Shingla RFs too, there are no elephants. In Shingla RF one tusker was sighted in 1985 (!)

by the local forest officials, but where it came from and what happened to it later are not known. Even around 1971-73 there were about 100 elephants in Shingla RF (Aziruddin, pers. comm.), but when a sugar factory came up at Chargola and its activities like sugarcane cultivation in the adjoining areas intensified, no more reports of elephants were received.

About 18 elephants still survive in the Longai-Tilbhum RFs with perhaps six more in Katakhal RF. Earlier, elephants also existed in Patharia hills RF north of Tilbhum RF, bordering Bangladesh. But no elephants were sighted by local forest officials in the area recently. The Longai-Tilbhum herd also often visits the Badshahitilla RF.

The Katakhal herd is a small one with only about 6-8 elephants. Both Katakhal and Longai-Tilbhum herds are now isolated, with no possibility, at least for the Katakhal herd, of joining the others. The herd now moves between Lalachara and Kukichara (Fig. 2). Interestingly they avoid the vicinity of the Mizoram border. In 1966 there were about 60-62 elephants in the area, i.e. the predecessors of the present Katakhal herd (Aziruddin, pers. comm.).

Some of the localities from where elephants of the Katakhal herd were captured in the past (which also reflect their movement route at that time) are Shapur-Bandookmara (1967-68), Saraspore (1972-73) and Mohanpur (1972-73); the last of the herd, reportedly 11 on the west bank of Dhaleswari river were captured at Maniknagar, north-east of Shingla RF in 1977-78 (Aziruddin,

TABLE 2
ESTIMATED ELEPHANT POPULATIONS AND DENSITY IN SOME EVERGREEN/SEMI-EVERGREEN
FOREST AREAS OF ASSAM

Forest Division	Reserved Forest area in sq. km	Estimated elephant population	Density/ sq. km
1. Cachar (Cachar dist.)	1,746	50	0.03
2. Karimganj (parts of Cachar and Karimganj dist.)	607	25	0.04
3. Darrang East (parts of Sonitpur)	669	175	0.26
4. Lakhimpur (Lakhimpur)	611	104	0.17
5. Sibsagar (Sibsagar and Jorhat)	510	150	0.29
6. N.C.Hills (N.C. hills)*	618	100	0.16

Sources: 1,2,5 and 6: own estimates based on field work. 3 and 4: elephant census by Forest Deptt (Choudhury undated)

* Also moist mixed deciduous. Area: North Cachar Hills 4,890 sq. km. Cachar (incl. Karimganj) 6,962 sq. km.

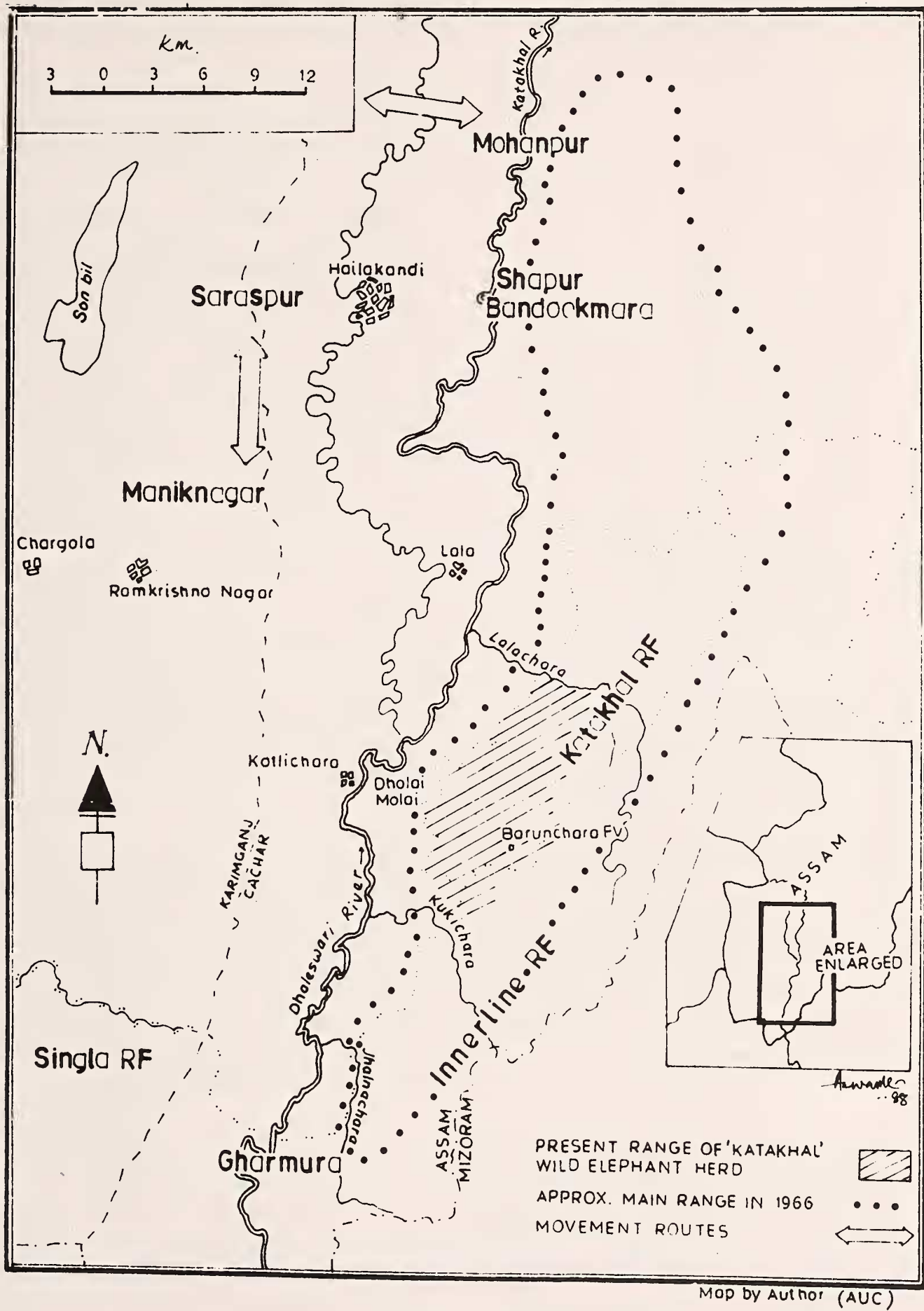


Fig. 2. Present and recent-past ranges of the surviving wild elephant herd of Katakhal RF with earlier movement routes.

TABLE 3
MONTHLY AVERAGE MAXIMUM AND MINIMUM
TEMPERATURES FOR 1978*, AND MONTHLY
TOTAL RAINFALL (MEAN) FOR THE PERIOD 1983-87.

Month	Temperature in°C		Rainfall (mm)
	Maximum average	Minimum average	
January	23.9	10.4	9.5
February	27.6	13.2	34.3
March	30.9	16.4	219.6
April	32.0	20.4	466.0
May	30.6	22.3	366.9
June	31.0	23.7	664.1
July	31.7	24.1	549.2
August	33.8	24.6	434.0
September	32.0	24.0	513.2
October	31.8	22.2	224.0
November	28.3	17.8	38.2
December	27.4	12.4	33.7
Mean annual			3552.7

Measured at Kumbhirgram (Silchar) Airport.

Source: Meteorological Station, Guwahati.

*Due to non-availability of data for a few months between 1979 and 1985, the average could not be calculated.

pers. comm.).

During my field survey it was reported to me by an employee of Bikrampore tea garden that a herd of about 15-25 elephants regularly raid the tea estate. Bikrampore is located near the southern foot of the Barail range. Other localities of northern Cachar from where confirmed reports have been received are Kalainchara area of North Cachar RF and Balachara area just south of Barail RF. But whether the herds at Balachara and Bikrampore or Kalainchara are the same or different is not known. In July 1988 about 25-30 elephants were seen in Balachara area.

DISCUSSION

Though the elephant is in trouble in several other areas of Assam (except within sanctuaries), the situation in these two districts of southern Assam is extremely serious. While in N. C. hills habitat alteration is playing the major role, in Cachar and Karimganj it is the poaching by Mizo tribals that has caused the decline in populations.

The hill tribes of N. C. hills like the Dimasa Kacharis, Kuki groups of tribes (Hmars, Thadous, Rangkhails, Bietes, Paites, etc.), Naga groups

(Jemis, etc.) and Khasi-Jaintia tribes practise jhum or slash-and-burn shifting cultivation. Due to rapid growth of population (Table 1) the pressure on existing forest resources has also increased greatly. In southern Cachar also tribals like the Reangs, Chakmas, Mizos, Tipras (Tripuris) practise jhum.

Encroachment and tree-felling is fragmenting the habitat, thus making it unfavourable for wildlife. Moreover, there are also many forest villages inside RFs. Parts of Langting Mupa RF, south-east of Langting, are cleared in such a way for settlement that there is virtually no scope for any elephants to revisit the area. The construction of the Kopili hydel project with two dams has already destroyed good forest areas including parts of Krungming RF. A township has also grown up in Unrangsu (near Garampani), which was a well-known hunting resort.

In southern Cachar and Karimganj elephants are killed for meat. The main killers are the Mizo tribe, who relish elephant meat. Tuskers are highly sought after, being shot for both ivory and meat, and rarely attain full maturity. It may be mentioned here that Mizos are almost single-handedly responsible for pushing the elephants in this part to the verge of extinction. Some Khasis settled in the area also kill elephants whenever opportunity occurs. In N. C. hills and northern areas of Cachar also, many unreported cases of poaching occur. The main tribes involved are Dimasa Kacharis, Nagas and also Mizos (Dimasa Kacharis also eat elephant-meat). In a recent case (late 1987) a wild elephant was killed by the Dimasa Kacharis by the pit method (locality not known) and later its meat was distributed in Maibong town.

A feature I observed during various field trips in different parts of Assam is that the population of elephants in southern Cachar was always proportionally much less than in other evergreen and semi-evergreen forest areas (Table 2). There are still large areas in Innerline and Katakhal RFs good enough to hold many more elephants. The small population may be due to the traditional hunting by tribals like the Mizos, which has been going on for centuries.

A recent addition to the list of disturbing agents is the massive bamboo harvesting operation for two of Asia's largest paper mills, at Jagiroad (Nagaon) and Panchgram (Cachar), each having a capacity of 100,000 tonnes per year. To ensure sustained supply of bamboo, the Hindustan Paper Corporation (HPC) has entered into a 30 year lease agreement with the Government of Assam and the Autonomous District Councils of Karbi Anglong and North Cachar hills. The forest areas leased out include the existing reserved and unclassed state forests in N. C. hills, Cachar and Karimganj.

Unless conservation measures are taken up early, within a decade the elephant may vanish completely from both the areas. Existing RFs should be given full protection and encroachment prevented. Villages in the heart of the forest should be relocated if eviction is not possible. Certain jhum control measures like rehabilitation of jhumiyas through alternative means of cultivation should be undertaken, as has been attempted by the Mizoram Government recently. Some pockets which harbour the surviving wildlife should be excluded from the lease agreement with HPC. As regards southern Cachar and Karimganj,

the areas are exceptionally rich in primate resources (Choudhury 1988) and should be declared a wildlife sanctuary without further delay. Recommendations have been made on several occasions besides submitting a representation to the government (to declare the area as Dhaleswari Wildlife Sanctuary/National Park) but the state government has not taken any action.

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